

IN THE SPECIFICATION:

Please amend the specification at page 12, line 18 to insert the following:

“Figure 6 depicts the DF set at two subsequent locations. For the purpose of clarifying the geometry of the locating solution method, however, the DF set is shown as stationary (relative to the transmitter location graphical solution). As a result, Figure 6 can be considered to be a DF Set-centric view, wherein the DF set appears to be stationary and any lines of bearing or transmitter locations are in relation (or relative to) the moving DF set. In fact, the transmitter might actually be stationary in the depicted Figure 6, with all relative movement being provided by the transmitter. First, PP(0) (the cross-over point) is determined as discussed in the Specification previously. As the DF Set is then moved, the line of bearing to the cross-over point will continue to “point” towards PP(0). When a new DF Set location is reached and a new line of bearing is “drawn” to the newly-detected transmission. The connecting vector, in this example, is then drawn perpendicular to the latest line of bearing, through the last line of bearing or estimate position (in this case it is PP(0)).”

IN THE CLAIMS:**Listing of Claims:**

- 1 1. (original) A direction-finding method comprising the steps of:
- 2 establishing a cross-over position point;
- 3 relocating a receiver to a new receiver spacial location;

4 said receiver at said new receiver position receiving a transmission from a
5 transmitter at a transmitter position;
6 determining a real-time line of bearing from said receiver to said transmitter;
7 generating a connecting vector from said real-time line of bearing to said cross-
8 over position point; and
9 identifying a real-time position of said transmitter along said connecting vector.

1 2. (original) The method of Claim 1, wherein said identifying comprises identifying a
2 best guess transmitter position responsive to said real-time position of said transmitter.

1 3. (original) The method of Claim 2, further comprising the steps of:

2 again relocating said receiver to a new receiver spacial location;

3 said receiver at said new receiver position receiving a transmission from said
4 transmitter at a transmitter position;

5 determining another said real-time line of bearing from said receiver to said
6 transmitter;

7 generating a said connecting vector from said last real-time line of bearing to said
8 best guess transmitter position; and

9 identifying said best guess position of said transmitter along said connecting
10 vector.

1 4. (original) The method of Claim 3, wherein:

2 said determining step further comprises determining a quality factor for said real-
3 time line of bearing; and

4 said identifying step further comprises assigning a probability factor to said real-
5 time position of said transmitter responsive to said quality factor.

1 5. (original) The method of Claim 3, further comprising a repeating step to repeat said
2 relocating, receiving, determining, generating and identifying steps until said probability
3 factor exceeds a predetermined threshold value.

1 6. (original) The method of Claim 3, further comprising a repeating step to repeat said
2 relocating, receiving, determining, generating and identifying steps until a user terminates
3 said direction finding method.

1 7. (original) The method of Claim 3, further comprising a repeating step to repeat said
2 relocating, receiving, determining, generating and identifying steps until said probability
3 factor meets a user-defined threshold value.

1 8. (previously presented) A direction-finding method executed by a portable DF set
2 comprising a receiver and a programmable computing system comprising a processor, an
3 input device, an output device and a storage medium, the method comprising the steps of:

4 establishing a cross-over position point representing a position of a transmitter
5 and outputting said point at said output device;

6 moving said DF set to a new DF set position;

7 receiving at said DF set in said new DF set position, a transmission from said
8 transmitter;

9 determining, via said programmable computer, a real-time line of bearing from
10 said DF set to said transmitter responsive to said transmission;

11 generating, via said programmable computer, a connecting vector from said real-
12 time line of bearing to said cross-over position point; and

13 determining a real-time transmitter position along said connecting vector and
14 outputting said position at said output device.

1 9. (original) The method of Claim 8, wherein said identifying comprises identifying a
2 best guess transmitter position responsive to said real-time position of said transmitter.

1 10. (original) The method of Claim 9, further comprising the steps of:

2 again relocating said receiver to a new receiver spacial location;
3 said receiver at said new receiver position receiving a transmission from said
4 transmitter at a transmitter position;
5 determining another said real-time line of bearing from said receiver to said
6 transmitter;
7 generating a said connecting vector from said last real-time line of bearing to said
8 best guess transmitter position; and
9 identifying said best guess position of said transmitter along said connecting
10 vector.

1 11. (original) The method of Claim 10, wherein:

2 said determining step further comprises determining a quality factor for said real-
3 time line of bearing; and

4 said identifying step further comprises assigning a probability factor to said real-
5 time position of said transmitter responsive to said quality factor.

1 12. (original) The method of Claim 10, further comprising a repeating step to repeat said
2 relocating, receiving, determining, generating and identifying steps until said probability
3 factor exceeds a predetermined threshold value.

1 13. (original) The method of Claim 10, further comprising a repeating step to repeat said
2 relocating, receiving, determining, generating and identifying steps until a user terminates
3 said direction finding method.

1 14. (original) The method of Claim 10, further comprising a repeating step to repeat said
2 relocating, receiving, determining, generating and identifying steps until said probability
3 factor meets a user-defined threshold value.

1 15. (previously presented) A real-time direction-finding system, comprising:

2 a transmitter transmitting wireless transmissions, said transmitter defining a
3 spacial location;

4 a DF set comprising a movable receiver for receiving said transmissions; and

5 a computing device for determining said location of said transmitter responsive to
6 transmissions received by said movable receiver and not responsive to other said
7 receivers, wherein said computing device operatively:

8 generates a cross-over point, said cross-over point defined as the
9 intersection of a pair of sequential real-time lines of bearing from said DF set each line of
10 bearing corresponding to a wireless transmission from said transmitter received by said
11 DF set;

12 receives a transmission signal responsive to a transmission received by
13 said DF set after said DF set has been moved to a new spacial location;

14 determines a real-time line of bearing from said DF set to said transmitter
15 responsive to said transmission signal;

16 generates a connecting vector from said real-time line of bearing; and

17 determines a real-time transmitter position along said connecting vector
18 and outputting said position at an output device associated with said computing device.

1 16. (canceled)